

E-RATE DEPLOYED UBIQUITOUSLY (EDU) 2011 PILOT PROGRAM**WC Docket No. 10-222****Application Deadline: December 17, 2010****Melrose ES Math/ Science/ Technology Magnet
Los Angeles Unified School District*****Required Information (all applicants):******(1) a full description of the current or planned Applicant Wireless Program, including but not limited to:******a. the nature of the Applicant Wireless Program, including the extent to which the use of connectivity is interactive and utilizes the Internet,***

LAUSD provides our school with campus-wide Internet connectivity. The Melrose faculty reports that this wireless access greatly contributed to the overall success of their instructional technology integration. In fact, they all reported that without the access, the technology integration would not have been nearly as successful. As a school community, a critical goal is to work to ensure that students have off-site Internet access. Though their teachers have developed support mechanisms, students who do not currently have off-site Internet access are at a striking disadvantage compared to those students who do have access. Our long-term plan and goal is to support 100% of parents in securing off-site Internet access for their students.

Our Grade 3-5 students participate in a 24/ 7 1:1 laptop program. Therefore, each student is issued his/her own laptop; and, they take the laptops home. Our second graders participate in a 2:1 laptop program, which provides them an introduction to laptop use and prepares them for participating in a 24/ 7 program when they enter 3rd grade.

b. how long the Applicant Wireless Program has been in operation and the mobile wireless device(s) being used,

Our 1-1 Laptop Program for students in grades 3-5 has been in operation for one year. Some students have family provided Internet access at home. Our goal is to provide 24/7 Internet access to all students participating in the laptop program via the use of a USB broadband card.

c. a description of any technical issues associated with implementing the Applicant Wireless Program, including an analysis of any problems with the availability of wireless access to students or patrons off the school or library premises and how those issues are being or will be addressed by the school or library,

Our school community has not experienced technical problems for those students who currently have off-site wireless access. The lack of availability of off-site access for students has proved a significant challenge. The following remedies have been put into place to support students who do not have off-site access:

- Students remain at school after hours to make use if the school's wireless access.

- Teachers develop Word versions of documents that would usually be accessed via Google Docs. Students complete the work in the Word Document and copy/ paste to upload when they arrive at school the next day.
- Teachers create research tools for students that are screen shots of Internet sites for students to use when off-site.
- The school has identified community resources (public libraries, Starbucks, McDonald's. etc), which parents can use so that students have some options for Internet access off school site.

Though these remedies have been put into place, our faculty strongly believes that nothing replaces the ubiquitous off-site access a broadband card would provide.

d. what training has been or will be provided to teachers, librarians, students or parents to implement the Applicant Wireless Program, and

Teachers participate in professional development two to four times a month regarding effective use of the Wireless Program. Topics include Web 2.0, Google Docs, Google Forms, using Internet resources to support Depth & Complexity, Project-Based Learning, Internet Safety and Etiquette, etc. Additionally, teachers participate in a monthly Tech Talk. During this time, teachers discuss successes and challenges around technology integration and wireless program usage.

Students participate in two mandatory Wireless Program Orientations a year focusing on Internet Safety and Etiquette. Teachers provide instruction to students on all other matters related to Internet use. We have found this approach to be highly successful because when the Wireless Program instruction takes place in the context of the instructional program, students exhibit a deeper understanding. Students and teachers have participated in common professional development, so that students may serve as peer instructors and experts. Students continue Wireless Program Learning using Brain Pop as a means to develop their understanding of important Wireless Program issues.

Parents participate in one mandatory Laptop/ Wireless Program Orientation annually. Parent technology training is offered at least once a month on the school site. Wireless Program instruction is incorporated into every session.

e. the extent to which the Applicant Wireless Program is integrated with federal, Tribal, state, regional or local governmental or non-profit initiatives to achieve educational or community access outcomes;

Federal funds through the Magnet Assistance Grant-start-up funds amounted to \$600,000. Also, NASA and the California Parks, Parks Online Resources for Teachers and Students (PORTS) programs provide online content and video conferences to Melrose faculty and students. Additionally, non-profits such as Growing Great and the LA Conservation Corps have supported our work in the gardens in that students wirelessly access the Internet to conduct research on plant life while they are sitting in the school gardens.

(2) the poverty level based on the percentage of students eligible for a free or reduced price lunch under the national school lunch program (NSLP) or a federally approved alternative mechanism, and the current discount rate of the school or library;

For Melrose Elementary School, the percentage of students eligible for a free or reduced price lunch is 62.42% based on an enrollment of 306 with 191 eligible for FRL. The current SLD discount rate for the school is 80%. The 20% unfunded costs will be covered by funds determined by the school site.

(3) the financial need of the school or library, including any additional budgetary hardships, notwithstanding the school or library's current discount rate;

Our families are 75% Title I (receiving free and reduced lunch). Providing off-site access has been an incredible struggle for many families if they are able to provide it at all. Data gathered through the use of parents' surveys, indicate the majority of our families would benefit greatly from discounted or free off-site access.

(4) all costs, including those eligible for E-rate support and those not eligible for E-rate support, associated with implementing the Applicant Wireless Program, including but not limited to costs for equipment such as e-readers or laptops, access and connection charges, teacher training, librarian training, or student/parent training;

Budgeted Item	Cost/ Item	Quantity/Funding	Line Total
Laptops	\$1,100	220 These are the laptops that are currently going home.	\$105,000
Teacher Professional Development (one time)		Federal and State Title I an ELL Program Budgets	\$20,000
Teacher Professional Development		Federal Title I funds	\$6,000/ year
Parent Professional Development		State Title I and ELL funds	\$8,500/ year
Planned Student Training (Mouse Squad)		Will use 2011-12 School Year Magnet funds	\$6,000/ year
On-Line Subscriptions to Internet resources for students and teachers		State and Federal Title I and ELL funds and Federal Magnet funds	\$8,400
Total			\$153,900

(5) the committed school or library resources available to implement the entire Applicant Wireless Program, including whether those funds are from the school or library's general budget or from an outside funding source;

The school's commitment to this program is extremely strong. We have allocated over \$700,000 of our budget over the last two years to this program. Our fundraising efforts have been committed to building our Technology/ Wireless Program. However, these efforts do not cover our expansion plan. Based on our current fundraising, it would take ten years to roll out. We are currently attempting to secure corporate support. To date, we have not secured a corporate sponsor though we are in talks with various companies. Teachers have also used www.donorschoose.org to secure technology resources. Our school has written several grants to support the implementation of the plan. We will continue to do so.

(6) the effect EDU2011 support for off-premise connectivity is likely to have upon the school's or library's projects;

EDU2011 support would have a profound affect on our school's projects. We are a 21st century school in every sense of the definition. Expanding the Technology/ Wireless Program would allow for the increased engagement of all target students in meaningful ways that would provide intriguing challenge, depth and complexity. We have collected much data on the effects of the program in Grades 3-5. Providing Internet access at home for all third through fifth grade students will greatly increased their opportunities to engage with the curriculum in ways that allow them to be producers of knowledge, not just consumers of it.

Teachers will be able to implement the instructional plans that they crave to implement class-wide. The instructional plans have clearly increased engagement with the curriculum. Our school's long-term goal is to expand that engagement to all students and all grade levels.

(7) an analysis of the cost-effectiveness of the current or planned Applicant Wireless Program as compared to the use of other types of technology that would also meet the Program's objectives;

Cost Comparison for Melrose Elementary

	Fixed Wired/Wireless	Wireless Broadband
Non-Recurring LAN Modernization Cost*	\$127,083.82	n/a
Recurring Annual Internet Access Cost (6 Mbps for fixed wired/wireless)	\$7,200.00	\$124,800.00
Recurring Annual Maintenance Cost	\$9,000.00	n/a (covered in above charge for internet access)
Recurring Internet Access at Home	\$178,464.00	n/a (covered in above charge for internet access)
TOTAL ANNUAL COST	\$321,747.82	\$124,800.00

* Amortized over five years

The figures above show that a wireless Broadband solution is more cost-effective than a fixed wired and wireless solution at school and at home when providing students and teachers with access to instructional resources. The fixed wired and wireless solution includes the cost of modernizing and maintaining the school site network, providing Internet access at the school site, and providing internet access at the homes of students and teachers. The wireless Broadband solution includes the cost of broadband connectivity to provide students and teachers with anytime, anywhere access. Based upon the analysis, the wireless Broadband annual cost is approximately 62 percent less when compared to the current fixed wired and wireless home and school access solution.

(8) any relevant technology planning documents and, if applicable, a statement of long-term objectives for the Program;

The LAUSD Education Technology Plan was approved by the California State Department of Education on December 5, 2008. This plan took effect July 1, 2009 and will expire on June 30, 2012. This plan guides the District's integration and procurement of technology resources to support the instructional program. Specific items relevant to EDU2011 include:

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Action Plan (for all 5c goals) Timeline

a. The Educational Technology Group and ITD will survey schools to determine current practices and identify potential pilots for using ubiquitous mobile learning devices, e-textbooks, virtual desktop systems, blade computing, creative lease options and other concepts to meet and sustain Plan goals and budget needs. Pilots in 08-09 and 09-10 at all levels, with successful strategies spreading in 09-10 and after (ongoing, 2009-12)

Page 101 states...

Consistent with this research, LAUSD's Technology Plan has been designed to address the benefits and rationale for both learning "from" technology (i.e., using computers to assist students in learning skills, etc.) and learning "with" technology (i.e., using technology to assist students with projects and other higher order thinking skills lessons). The Plan also addresses sufficient and accessible equipment, especially as it relates to student-to-computer ratios, and technical and instructional support. Long-term planning and monitoring are built into the Plan.

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Under this Technology Plan, students will use computers (including mobile laptop labs), online resources (such as streaming media, reference databases, and podcasts), analog and digital recording equipment, and projection devices to plan, develop, and present standards-based projects in core and additional subject areas. Students will share ideas and knowledge using tools and forums such podcasts, videoconferencing, email, monitored

discussion boards, student response systems, conferences, symposia, and competitions, and new, emerging technologies.

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District Educational Technology Group will explore pilots with organizations such as Computers for Youth Foundation and InternetforEveryone to provide options for free computers, training and support and free/reduced cost Internet access for low- income families of 6th grade students.

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The District is also investigating opportunities for providing low-income parents in middle schools with access to a free computer and Internet access, the first pilot for which will be in fall 2008 as detailed in the Action Plan.

(9) a description of the specific measures taken, or that will be taken, to ensure compliance with the Children's Internet Protection Act and measures to protect against waste, fraud, and abuse; and

The use of the Internet in schools and at home can have a positive impact on a student's education. The use of the Internet also presents certain risks, which can be reduced greatly when students learn how to use their online access safely and appropriately. LAUSD schools providing Internet access to students District educate students in accordance to the *Protecting Children in the 21st Century Act*. Teachers provide instruction on appropriate online behavior, including interacting with other individuals on social networking websites and in chat rooms as well as cyber bullying awareness and response. To provide a safe online environment for our students and staff, LAUSD's Educational Technology Group has organized Web resources that are be used by elementary, middle, and high schools. As an example, the do's and don'ts of technologies students use are addressed on the District's The Elementary Internet Safety website, *Team Cyber*, includes the K-12 Internet Safety Curriculum developed by *CyberSmart Education*. Students *learn* about Internet Safety by following the Cyber S-M-A-R-T topics. There are also additional websites posted for students to *explore, share* and *play*. Middle school and high school Web resources organized by the District address similar topics and more as appropriate to the grade levels served.

Student Internet Safety

1. Students under the age of eighteen should only access LAUSDnet accounts outside of school if a parent or legal guardian supervises their usage at all times. The student's parent or guardian is responsible for monitoring the minor's use;
2. Students shall not reveal on the Internet personal information about themselves or other persons. For example, students should not reveal their name, home address, telephone number, or display photographs of themselves or others;
3. Students shall not meet in person anyone they have met only on the Internet; and
4. Students must abide by all laws, this Acceptable Use Policy and all District security policies.

The District maintains strict policies and procedures regarding procurement procedures and documentation as well as ethics with regard to the use of technology in and out of classrooms. The District's Acceptable Use Policy (AUP) is also reviewed with all staff and students each year and parents must sign that they have received and will work with their

child on appropriate use of computers and the Internet as a requirement for securing an e-mail account.

(10) a description of internal policies and enforcement procedures governing acceptable use of the wireless devices used in the Program off the school or library's premises.

Users of LAUSD computers systems, networks, or the Internet must adhere to the Acceptable Use Policy. Site administrators distribute, collect, and keep on file completed AUP forms from students prior to authorizing access to the Internet or the District's network.

The District's Acceptable Use Policy is written to help prevent unauthorized access and other unlawful activities by users online, unauthorized disclosure of or access to sensitive information, and to comply with the Children's Internet Protection Act ("CIPA"). As used in this policy, "user" includes anyone using the computers, Internet, email, chat rooms and other forms of direct electronic communications or equipment provided by the District (the "network."). **Only current students or employees are authorized to use the network.**

The District uses technology protection measures to block or filter, to the extent practicable, access to inappropriate material over the network. The District reserves the right to monitor users' online activities and to access, review, copy, and store or delete any electronic communication or files and disclose them to others as it deems necessary. Users are also cautioned that they should have no expectation of privacy regarding their use of District property, network and/or Internet access or files, including email.

Acceptable Uses of the LAUSD Computer Network or the Internet

Schools must verify each year students using the computer network and Internet access for that school year have a signed page acknowledging this policy. Students who are under 18 must have their parents or guardians sign this page and schools must keep it on file. Once signed that permission/acknowledgement page remains in effect until revoked by the parent, or the student loses the privilege of using the District's network due to violation of this policy or is no longer an LAUSD student. Employees and other users are required to follow this policy. Even without signature, all users must follow this policy and report any misuse of the network or Internet to a teacher, supervisor or other appropriate District personnel. Access is provided primarily for education and District business. Staff may use the Internet, for incidental personal use during duty-free time. **By accessing the network, users are deemed to have agreed to this policy.** Users uncertain as to whether a particular use is acceptable or appropriate, are instructed consult their teacher, supervisor or other appropriate District personnel.

Unacceptable Uses of the Computer Network or Internet

These are examples of inappropriate activity on the District web site, but the District reserves the right to take immediate action regarding activities (1) that create security and/or safety issues for the District, students, employees, schools, network or computer resources, or (2) that expend District resources on content the District in its

sole discretion determines lacks legitimate educational content/purpose, or (3) other activities as determined by District as inappropriate.

- **Violating any state or federal law or municipal ordinance, such as: Accessing or transmitting pornography of any kind, obscene depictions, harmful materials, materials that encourage others to violate the law, confidential information or copyrighted materials;**
- **Criminal activities that can be punished under law;**
- **Selling or purchasing illegal items or substances;**
- **Obtaining and/or using anonymous email sites; spamming; spreading viruses;**
- **Causing harm to others or damage to their property, such as:**
 1. Using profane, abusive, or impolite language; threatening, harassing, or making damaging or false statements about others or accessing, transmitting, or downloading offensive, harassing, or disparaging materials;
 2. Deleting, copying, modifying, or forging other users' names, emails, files, or data; disguising one's identity, impersonating other users, or sending anonymous email;
 3. Damaging computer equipment, files, data or the network in any way, including intentionally accessing, transmitting or downloading computer viruses or other harmful files or programs, or disrupting any computer system performance;
 4. Using any District computer to pursue "hacking," internal or external to the District, or attempting to access information protected by privacy laws; or
 5. Accessing, transmitting or downloading large files, including "chain letters" or any type of "pyramid schemes".

Required Information (schools only):

(1) the location of the school;

Melrose Elementary School Math, Science, and Technology Magnet is located at 731 North Detroit Street, Los Angeles, CA 90046.

(2) the name of the school applicant, along with a complete list of the individual schools that will be served, including their billed entity numbers;

The applicant is Melrose Elementary School Math, Science, Technology Magnet. Their billed entity number is 100885.

(3) a description of the school district or school, including the type of school, such as private, public, charter, or other special type of school;

Melrose Elementary School Mathematics/ Science/ Technology Magnet is a K-5 public school on a traditional (September-June) calendar with an enrollment of 336 students. As a magnet school, we are charged to implement an integrated instructional program with an emphasis on Math, Science and Technology. Melrose is part of Los Angeles Unified School District (LAUSD), Local District 4.

Melrose is a school-wide Title I school. 75% of our students receive free and reduced-priced meals. 20% of our students are English Language Learners. Our student body is very diverse: 52% Latino, 23% White, 17% Asian-American and 8% African-American. The numbers, however, do not tell the full story. Our students' families are from many different countries, backgrounds and cultures. For example, the home

languages of our students include Spanish, Swedish, Japanese, Korean, Amharic, Tagalog, Chinese, and Russian.

We have also have three Deaf/ Hard of Hearing Special Day classes serving students in an auditory program.

(4) a description of the Program's curriculum objectives, the grade levels included, and the number of students and teachers involved and/or being served as part of the program; and

We currently have 200 Grade 3-5 students participate in the 24/ 7 1:1 laptop program and eight classroom teachers. This group of 208 is our target group for the EDU2010 Pilot Program.

The curricular objectives that would be facilitated by the Wireless Program include:

- Development of conceptual math skills using Internet math programs www.ixl.com, Notebook, nlvm.usu.edu, etc.
- Google Docs Online (group collaboration on documents, spreadsheets, presentations)
- Development of rigorous writing skills using Google Docs, Internet research and websites such as *National Novel Writing Month*
- Ability to locate a large variety of information from various online resources to help them construct/craft their science and social science research projects.
- Development of conceptual language arts skills including www.tickettoread.com, Accelerate Reader
- quia.com/web (Teacher created games in all content area)
- BrainPop.com which allows students and teachers to research thousands of topics by content area in addition to providing excellent Internet safety and netiquette information.
- Assessment of student mastery of specific content and objectives using the LAUSD progress monitoring and periodic assessment system lausd.coreK12.com

It is critical to note that all of these online resources, which necessitate wireless access at school and at home, have greatly increased student engagement and interaction within all content areas. The vast majority of these online resources provide student level reports regarding mastery and time spent using the resource.

The aforementioned resources would facilitate students' ability to create and share podcasts; Prezi Presentations; participate in online learning communities (such as Think Quests)

The overall philosophy of our program is to provide students with meaningful, rigorous learning opportunities that are characterized by depth and complexity.

(5) a summary of any data collected by the school on Program outcomes and achievement of Program objectives.

Our school community deeply believes that our laptop program and current wireless program contributed to the academic achievement of our students. The data supports this belief:

- The Math proficient/ advanced percentage rose 33 percentage points as measured by the California Standards Tests (CST) 2010 . 75% of Melrose students are now proficient or advanced in mathematics.
- The English/ Language Arts proficient/ advanced percentage rose 18 percentage points as measured by the CST. 63% of our students are now proficient or advanced in English/Language Arts.
- The Science proficient/ advanced percentage rose 22 percentage points as measured by the CST. 58% of our fifth grade students are now proficient or advanced in Science.
- The attendance rate has improved by 7%. Our attendance rate is now 98.2%. We attribute the improved attendance to students wanting to come to school more due to the increased engagement and deepened rigor that is partially facilitate by instructional activities that are accessed wirelessly.